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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/450,584	11/30/1999	SHIGERU TSUKIMURA	046601-5034	7883

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MORGAN LEWIS & BOCKIUS LLP
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EXAMINER

GARCIA, GABRIEL I

ART UNIT	PAPER NUMBER
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2625

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above; the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/450,584

Applicant(s)

TSUKIMURA, SHIGERU

Examiner

Gabriel I. Garcia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Part III DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

2. Claims 10-14, 17-19-23 and 26-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Soenksen (6,711,283)

With regard to claim 10, Soenksen teaches an image forming device (e.g. fig. 5), comprising: a receiver (5 and 14) that receives image data including a plurality of color areas and black area (e.g. abstract), determining part that determines a first amount which is an amount of black material to be applied to the black area ((e.g. col. 9, lines 51-66, see also claim 1) and a second amount which is an amount of color materials to be applied to the black area (see claim 2), the determining part determining each of the first and second amount based on density of the black area (e.g. col. 4, lines 53-64); and an output part that outputs the first and second amounts to the black area (e.g. claims 1 and 2).

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and an output part that outputs the first and second amounts to the black area (e.g. claims 1 and 2).

With regard to claims 11 and 12, Soenksen further teaches wherein the output part outputs the second amount to the black area after the first amount is output to the black area, and the amounts being more than zero (see claims 1-3).

With regard to claim 13, Soenksen further teaches the output part outputs the first and second amounts to the black area being positioned on a recording medium including a paper (see figs 3-5).

With regard to claim 14, Soenksen further teaches wherein the determining part determines the second amount regardless of a background of the black area in the image data (see abstract and fig. 1).

With regard to claim 17, Soenksen further teaches an edge detector that detects an edge of the black area, wherein, the determining part determines a third amount which is an amount of the color materials to be applied to a periphery of the edge, and the output part outputs the third amount to the periphery of the edge (see fig. 2a and 3a)

With regard to claims 18-23 and 26-28, the limitations of claims of claims 19-23 and 26-28 are covered by the limitations of claims 1-14, 17 and 18.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 15-16 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birnbaum et al. (U.S. Patent Number 5,923,821) as applied to claim 10 above and in further view of Dermer et al. (U.S. Patent Number 5,313,570).

Regarding claims 15, Birnbaum discloses the device discussed above in claim 1, and further teaches that the output part is based upon primary colors of black, yellow, magenta and cyan (see abstract), and an amount of each color material of the Y, M, C is output to the black area (column 6, lines 13-38). However, Birnbaum does not specifically teach if the amount of each color material of the Y, M, C is output to the black area in a range of 10 to 40% (percentage by weight) of the amount of black material.

Dermer discloses an image processing device (see Fig. 1) comprising an input part to which image data represented by a plurality of colors including black is input (see Fig. 1), a detector that detects boundary areas in the image data (see abstract), and an output part that adds color materials, except a black material, of a predetermined amount to the detected area regardless of contents of the image data in a background of the area and outputs the color materials and the black material (column 19, line 8-column 20, line 54). Further, Dermer teaches that the output part is based upon primary colors of black, yellow, magenta and cyan, and an amount of each color material of the Y, M, C is output to the black area in a range of 10 to 40%

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(percentage by weight) of the amount of black material (column 19, line 8-column 20, line 54, and seen in Fig. 24, whereby the output part outputs Y, M, C materials in any specified range, included within the range of 10 to 40% percentage by weight).

Birnbaum & Dermer are combinable because they are from the same field of endeavor, being printing systems that process images having input data with a plurality of colors. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the range of color material indicated by Dermer within the system of Birnbaum. The suggestion/motivation for doing so would have been that Birnbaum's system would be capable of printing more colors, since different combinations of colors, as well as tints and degredes, can be achieved by varying the weight percentages of each ink, as recognized by Dermer in column 19, lines 8-26. Therefore, it would have been obvious to combine the teachings of Dermer with the system of Birnbaum to obtain the invention as specified in claim 10.

Regarding claim 15, Birnbaum and Dermer disclose the device discussed above in claim 10, and Birnbaum further teaches of a reduction unit that reduces the amount of the color material of the Y, M, C, keeping the amount of the black material in case a total amount of the color materials of K, Y, M, C exceeds a predetermined value (column 10, line 56-column 11, line 17).

With regard to claims 24-25, the limitations of claims 24-25 are covered by the limitations of claims 14 and 15 above.

Conclusion

4. Applicant should submit an argument under the heading "Remarks" pointing out disagreements with the examiner's contentions. Applicant must also discuss the references applied against the claims, explaining how the claims avoid the references or distinguish from them.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Gabriel I. Garcia** whose telephone number is (571) 272-7434. The Examiner can be reached from Monday through Thursday, from 7:30 am to 6:00 pm. The fax phone number for this group is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-2600.

Gabriel I. Garcia
Primary Examiner
February 2, 2007

A handwritten signature in black ink that reads "Gabriel Garcia". The signature is written in a cursive style with a large, stylized "G" and "G" at the beginning and end of the name.

GABRIEL I. GARCIA
PRIMARY EXAMINER